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State-of-the-Art and Future Directions for Green Human Resource Management: Introduction to the Special Issue

The topic of environmental sustainability is generating increased concern among business executives, governments, consumers, and management scholars. As these stakeholders struggle with the challenges and opportunities presented by an array of environmental issues, HRM scholars and practitioners alike have been relatively slow to engage in the ongoing discussions and debates. Through this special issue on Green HRM, we seek to stimulate the field of HRM to expand its role in the pursuit of environmentally sustainable business. In this introduction to the special issue, we first provide an overview of the articles that appear in the special issue. Next we present a detailed discussion of research questions that arise from a consideration of several functional HRM practices, including performance management; training, development, and learning; compensation and rewards; and organizational culture. We conclude by describing opportunities for research at the intersection of strategic HRM and environmental management. If pursued with vigor, research addressing this extensive agenda could begin to establish a healthy field of Green HRM scholarship.

Forschungsstand und Entwicklungsmöglichkeiten für Umweltorientiertes Personalmanagement: Einführung in das Schwerpunktheft

Nachhaltigkeit in Umweltfragen ist ein immer wichtigeres Anliegen für Unternehmensleitungen, Regierungen, Konsumenten und Wirtschaftswissenschaftler. Während diese Akteure mit den Herausforderungen und Möglichkeiten unterschiedlicher Umweltfragen ringen, engagieren sich Personalwirtschaftler relativ zurückhaltend in entsprechenden Diskursen. Mit diesem Sonderheft zum Umweltorientierten Personalmanagement möchten wir die Personalwirtschaft stimulieren, ihre Rolle zu erweitern und sich mehr mit umweltorientierten Nachhaltigkeitsfragen zu beschäftigen. In der Einleitung stellen wir zuerst die Beiträge dieses Heftes vor und diskutieren dann die Forschungsfragen, die sich aus einer Betrachtung verschiedener Personalfunktionen ergeben. Am Ende beschreiben wir die Möglichkeiten für Forschung an der Schnittstelle von Strategischem Personalmanagement und Umweltmanagement. Energisch verfolgt, kann Forschung entlang dieser extensiven Agenda helfen, Umweltorientiertes Personalmanagement zu etablieren.

Key words: Green HRM, environmental sustainability, sustainable HRM, environmental management, strategic HRM
(JEL: J24, L60, M10, M12, M14, M50, M54, Q01)

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In the past two decades, a worldwide consensus has emerged around the need for proactive environmental management (González-Benito & González-Benito, 2006). Gradually, as the damaging effects of industrial pollution and waste became evident, some governments and NGOs promulgated regulations and policies with hopes of slowing and perhaps even reversing the rapid destruction of natural resources and its negative societal consequences (e.g., see Christmann & Taylor, 2002; OECD, Martinez-Fernandez, & Hinojosa, 2010; Shrivastava & Berger, 2010). However, taking the home countries of the four editors as examples, we see many differences in the paths travelled by various countries regarding the major drivers of change, the timing of change and the impact of environmental concerns on business (Wagner, 2009).

In Germany, the anti-nuclear power movement of the 1970s was the catalyst for the development of a Green Party, which since the 1980s has been represented in federal, state and national governments. As a result, the environment has been high on the political agenda, resulting in relatively strict environmental regulations for business as well as government subsidies for “green products” such as solar energy (Radkau, 2011). One outcome has been a strong growth in green jobs, particularly in renewable energies.

In the other three countries, environmentalists have been less or not at all focused on opposition to nuclear power plants. In the UK, there has been a strong emphasis on animal rights and strong protests against road building. In the US, the natural environment—particularly forests and endangered animal species—have been a major area of environmental activity. In addition, over the last decades a strong anti-environmentalist movement has been very influential. In contrast to Europe, US environmentalism is also more driven by economic rationality (Radkau, 2011). In Brazil, environmentalism is more focused on the preservation of natural landscapes. The challenge is not only to introduce a proactive environmental management in companies but also to avoid the degradation of the natural environment, mainly the Amazon forestry and others landscapes such as the Cerrado. For example, in Brazil, almost 70% of CO₂ emissions come from natural environment degradation

Despite having travelled different paths to arrive at the present, there seems to be growing consensus among governments about the need to address environmental concerns. Unfortunately, major environmental disasters—including the recent events in Japan—may be among the most significant reasons for the emerging consensus. At the time of this writing, the full impact of the nuclear accident at the Fukushima nuclear plant was not known. However, we anticipate that this tragic event will put “the environment” even higher on the agenda of business and increase the importance of research and teaching of Green Management.

Already today, the UN Global Compact in collaboration with several educational organizations has developed the PRME Principles for Responsible Management Education, encouraging scholars and managers to jointly work on developing new knowledge to promote environmental responsibility (PRME, 2010). Management scholars from areas as diverse as accounting, marketing and supply-chain management are now analyzing how managerial practices in these areas can contribute to environmental management goals.

In contrast, scholarship at the intersection of human resource management (HRM) and environmental management is exceedingly scarce. Among the very early scholarly contributions was an edited book by Wehrmeyer (1996), titled *Greening People: Human Resources and Environmental Management*. The book contains chapters by academics and practitioners from different countries as well as case studies that analyse links between HRM and environmental management from a variety of perspectives. More than a decade later, Renwick, Redman, and Maguire's (2008) University of Sheffield White Paper titled, 'Green HRM: A Review, Process Model and Research Agenda', presented an exhaustive review of approximately sixty books and articles published between 1988 and 2008 addressing "Green HRM". Based on this, the authors concluded that a concise categorization of Green HRM practices can be clearly seen, beginning at the point of an employee's organizational entry and continuing until the point of the employee's exit. Throughout these stages, there are opportunities for all workplace stakeholders to engage in HRM as it pertains to environmental management, while accepting the barriers to, and limitations in, doing so (e.g., arising from the internal and external environment, and/or employment regulation and law). Furthermore, Renwick et al. suggested that future research could usefully focus on evaluating staff views of current organizational Green HRM practices (a 'bottom up' view) and understanding the predictors of staff adoption of Green HRM behaviours, to understand what drives such behaviours (e.g., fear, guilt and other factors). Scholars in the closely related fields of industrial-organizational/work psychology (see Huffman, Watrous-Rodriguez, Henning, & Berry, 2009) and organizational behaviour (see the upcoming Special Issue of the *Journal of Organizational Behavior* devoted to "Green OB") have also recently recognized the need for research at the intersection of those fields and environmental issues. And in 2009, the website www.greenhrm.org was established to serve as a free resource for scholars and students interested in learning more about the topic of Green HRM.

Despite these developments, the volume of scholarly work focusing on Green HRM remains small. Thus, when in 2009 the Academy of Management's annual conference had as its theme, "Green Management Matters," the proportion of the Human Resource Division's sessions devoted to Green HRM was estimated at a mere 4.5 percent. The following year, without the stimulus of the Green Management Matters theme, the percentage of the Academy of Management HR Division's program devoted to Green HRM was essentially zero (Jackson & Seo, 2010).

It was in this context of emerging interest in Green HRM that we invited authors who are working at the forefront of this new research domain to submit their work for consideration of this Special Issue of *Zeitschrift für Personalforschung* (*German Journal of Research in Human Resource Management*). As stated in our original Call for Papers, we sought empirical and conceptual articles papers addressing any of a broad array of topics that might be covered under the broad umbrella of Green HRM. Among the specific topics we hoped HRM scholarship might address were these:

- The influence of social, economic, market and other external forces on the approaches to environmental management and as it relates to HRM.

- Workforce development needs created by increasing demand for employees in the newly emerging green economy.
- Discussions of how and to what extent HRM policies and practices can improve the environmental performance of organizations.
- Specific HRM philosophies, policies and/or practices that support or inhibit change around environmental issues.
- International differences in Green HRM practices.
- The role played by trade unions and employee representatives in environmental management.
- Changing attitudes and behaviours related to environmental issues in the workplace.
- A discussion of the pros and cons for research and/or practice of focusing narrowly on environmental management versus addressing environmental concerns as part of a more expansive approach (e.g., focusing on the Triple Bottom Line or striving for “sustainability”).
- Discussions of how current theoretical perspectives and frameworks (e.g., those related to strategic competitiveness, knowledge management, learning organisation, communities of practice) can be applied by reflective practitioners to create an eco-friendly organizational culture.

As this list suggests, we embarked on this journey with considerable optimism that a newly emerging field of scholarship was already beginning to produce a bountiful harvest. Perhaps we should have anticipated the more likely outcome: After a season of drought, the crop yield was small. Happily, however, the quality of that crop is quite good. Thus, in this special issue, readers will learn about the usefulness of cognitive-social theory to Green HRM; environmental management and Green HRM in German manufacturing firms; the need to simultaneously focus on green behaviour in the workplace and in employees' private lives, and the opportunities for management learning in environmental management.

The paper written by *David Zoogah*, titled “The Dynamics of Green Behaviours: A Cognitive Social Information Processing Approach,” applies cognitive-social theory to Green HRM, establishing a “meta-theory” that focuses on the production and continuance of Green HRM behaviours. Grounded in a review of approximately 80 articles, it provides an authoritative account of cognitive-affective processing in Green HRM. The key contribution of this paper lies in presenting an interactive psychological approach, which pulls together social information processing in the decision-making and behaviours of HR managers. The theoretical framework integrates behavioural and cognitive social information processing – including “Green signatures” (decisions and behaviour) and the factors that influence them, and how they may be formulated, executed, maintained, and processed. It then moves to detail the consequences and dynamics surrounding such green signatures (such as psychological attributes). Focusing on individual differences in the green signatures of HR managers, it provides a platform for interested researchers to comprehend, hypothesize, and detail such green signatures more precisely (and provides insights for managers who

wish to understand these practices, too). Zoogah provides a dynamic model that proposes how individual difference characteristics of HR managers come alive in different environmental contexts, yielding testable research propositions that may facilitate greater understanding of Green HRM in organizations.

The article by *Viola Muster* and *Ulf Schrader* titled, “Green Work-Life Balance: A New Perspective for Green Human Resource Management,” introduces the idea that the greening of HRM can reach its full potential only by considering employees in their two main analytical dimensions: at work as employees, and at home as consumers. The article’s main assumption is that a more environmentally friendly society cannot be achieved if the emphasis is only on the adoption of green behaviour in the workplace. Instead this has to be combined with fostering green behaviour in an employee’s private life. The authors present a framework to explain how work-life balance could promote a more environmentally friendly society, facilitating environmentally friendly behaviour in both domains. Among the benefits of this approach are improved employee motivation, commitment and job retention. Thus, green work-life balance could be relevant for both companies and employees. Furthermore, the article shows how the work and private life dimensions could interact to promote a broader and systemic greening of HRM. The success of a green work-life balance strategy depends on how organisations can motivate employees to be green consumers outside companies and how they will be able to motivate employees to bring green ideas, experiences and innovations to the work place. This article breaks new ground by putting together the dimensions of “work” and “private life” to analyze the greening of companies and the greening of HRM. The conceptual arguments presented by the authors should be empirically tested in future research.

In the article titled, “Environmental Management Activities and Sustainable HRM in German Manufacturing Firms – Incidence, Determinants, and Perceived Outcomes,” *Marcus Wagner* presents an empirical investigation of environmental management activities in the manufacturing sector. This article begins by providing readers with a concise review of research and theory that address the relationship between environmental sustainability and HRM, including a discussion of the determinants of environmental activities and speculation about the performance outcomes that might be influenced by linking HRM and environmental activities. Using data collected at two points in time (2001 and 2006) from a large sample of German businesses, Wagner provides rich descriptive data concerning the incidence of technical and organizationally-focused environmental activities, including HRM activities such as environmental training. The results indicate a clear trend of increasing technical environmental activities over time, while also revealing slower growth in the implemental of organizational environmental activities. Predictably, larger firms were more likely to be actively engaged in environmental management. Furthermore, managers employed by firms that were more actively engaged in environmental management also were more likely to report that such activities had positive consequences for employee satisfaction and recruitment/retention. Importantly, however, the results from 2001 and 2006 were not identical. As time passed, the positive benefits of greater engagement in technical environmental management appears to have declined, perhaps because such activity no longer differentiated one firm from another. However, the benefits of or-

ganizational environmental management activities remained potent through 2006. Reflecting on these results, this article concludes with a few suggestions for future research.

The final article in this special issue is written by *Debbie Millard* and titled, “Management Learning and the Greening of Small and Medium-Sized Firms (SMEs): Moving beyond Problem-solving.” Millard’s article starts with the observation that despite a strong public emphasis on environmental management, there have been limited environmental improvement activities in business and in particular SMEs. Although most of the literature reviewed in this article and the data presented are from the UK, Millard’s observations are not confined to that country. Often environmental management is perceived to be a technical problem, and the importance of organizational learning for achieving environmental improvements is not recognized. Based on a study of SMEs that participated in a resource efficiency project, Millard identified several factors that facilitate a process of learning and change in environmental management. Among these are a strategic change approach, serious management involvement and learning in networks.

The papers appearing in this Special Issue on Green HRM reveal that HRM scholars are indeed beginning to engage in scholarly discussions and practical actions that can contribute to a global discussion about the role of HRM in environmental management. They add to a growing body of work that can serve as a guide to organizations as they strive to engage in more responsible and effective environmental management. In particular, they show how the existing literature on Green HRM can gain from integrating psychological theories, insights from other management functions (such as marketing), and a greater emphasis on organizational learning. However, not surprisingly, they address only a small portion of the research agenda outlined in the Call for Papers. Therefore we use the remainder of this introductory article to provide additional ideas for future research.

Future directions

Clearly, the field of Green HRM is young. In order for it to develop and mature, scholarship that addresses a broad array of issues is needed. In this closing section, we describe a few issues that future research could illuminate. We begin by discussing the links between HRM functions and environmental management and then conclude with a discussion of how future research might integrate the strategic HRM perspective and environmental management.

Research linking specific HRM functions and environmental management

The articles by Renwick et al. (2008) and Huffman et al. (2009) suggested many interesting opportunities for research at the intersection of specific functional HRM areas (i.e., staffing, training, performance management, compensation) and environmental sustainability. Here we briefly describe a few opportunities for additional research relating specific functional HRM activities to green management initiatives.

Recruitment

Recruitment practices can support effective environmental management by ensuring that new recruits understand an organization’s environmental culture and share its en-

vironmental values (Wehrmeyer, 1996). Several surveys conducted in the UK and the US indicate that graduates and other job applicants pay attention to the environmental management practices and performance of companies and use such information when deciding where to seek employment (Wehrmeyer, 1996; Stringer, 2009). Increasingly, firms are beginning to recognize that gaining a reputation as a green employer is an effective way to attract new talent (Phillips, 2007; Stringer, 2009).

What is less well understood is how job applicants and other potential employees form impressions of an organization's environmental credentials. For example do they attend to cues such as green job descriptions and green-friendly venues for recruiting? At what stage in the process of evaluating a potential employer is information about environmental management practices and performance most salient, and most influential? Research that addresses questions such as these can be used by environmentally responsible employers to attract talent that fits and is likely to contribute to achieving the organization's environmental goals.

Performance measurement

For current employees, the presence of rigorous metrics for assessing environmental performance signals that environmental rhetoric is likely to be backed up with meaningful action. Approaches to measuring environmental performance include adopting corporate-wide metrics for assessing resource acquisition, usage and waste; implementing information systems to track resource flows; and conducting field audits to provide employees opportunities to identify problems while gaining information and feedback about the environmental performance of the firm (Milliman & Clair, 1996).

Having in place metrics to assess environmental performance seems to be a necessary precursor to using such metrics to manage employees. But research on how best to use performance management metrics as a component of the performance appraisal is needed to improve our understanding of the most effective process for developing and implementing an approach for holding employees accountable. In addition to meeting the criteria of reliability, validity, and fairness, effective performance appraisals provide useful feedback to employees and support continuous improvements in the firm's environmental outcome. Issues to be explored include how to balance metrics that focus on environmental behaviours with metrics that focus on environmental outcomes or results, how to distribute responsibility across employees in various segments of the organization, and how to move from using metrics to monitor environmental performance toward using such metrics for activities such as setting performance goals, providing recognition, determining compensation, and influencing career advancement.

Training, development, and learning

When managers determine that organizational change is necessary, training activities are often among the first area for HRM involvement. A survey of managers' beliefs about management best practices that result in employees becoming engaged in eco-initiatives revealed that environmental training and education and establishing a culture in which employees feel they are accountable for environmental outcomes were the most salient HRM practices for achieving environmental goals (Ramus, 2002).

Initially, training might focus on educating employees about regulatory requirements and technical standards, and developing new technical skills to comply with such requirements and meet such standards. Training to improve employee awareness of the organization's environmental goals and business strategy may also be implemented in organizations that wish to create a shift in the corporate culture. But is such training sufficient? Is training designed to change attitudes and emotional involvement in environmental goals also needed, as some have argued (e.g., see Fernandez, Junquera, & Ordiz, 2003)? And how should environmental training be distributed—is it most effective when integrated into the training programs provided at the start of all new projects and processes, or is it more effective to offer modules that target environmental issues specifically? Under what conditions is generic training effective, and when is it more appropriate to tailor environmental training to the specific work conditions of the employees undergoing such training?

As environmental training becomes increasingly widespread, firms are likely to adopt a variety of training approaches, creating opportunities for research that evaluates the challenges and successes of the different approaches. Eventually, it is predictable that executives will expect HRM professionals to provide evidence to show the economic utility of the firm's investments in environmental training. Case studies that illustrate how to conduct such analyses and rigorous evaluation studies that document how training can change both behaviours and environmental outcomes would be especially valuable for HRM professionals asked to provide such evidence.

Research that addresses the barriers to successful environmental training is needed, also. Environmental training initiatives can flounder for many reasons, including inadequate needs analysis, poor trainee readiness, poor training transfer to the job, lack of actual or perceived commitment to training objectives among senior leaders and employee cynicism, among other problems (e.g., see Van Velsor & Quinn, forthcoming; Wehrmeyer & Vickerstaff, 1996). As just one example, consider the problem of low training readiness. Studies of training readiness have shown that exposure to learning opportunities is more effective when employees are motivated and psychologically ready to learn (Goldstein & Ford, 2001). Thus, the effectiveness of environmental training initiatives might be enhanced by including assessments of environmental learning readiness – perhaps even at the point of recruitment and selection. In order to move forward with this idea, however, research is needed on how to assess individual readiness for environmental learning and how to enhance learning readiness for employees judged not to be receptive to training efforts. Case studies that illustrate how companies have overcome this and other barriers would be of considerable practical usefulness.

Finally, research is needed to understand how organizations can develop a cadre of managers and executives capable of leading sustainability initiatives and learning throughout the process. The development of skills such as system thinking and negotiation may take years of experience working within a broad ecosystem of stakeholders (e.g., see Worley, Feyerherm, & Knudsen, 2010). Research that improves our understanding of the conditions that support such development and learning would be particularly useful.

Compensation and rewards

Monetary and nonmonetary rewards are another potentially powerful tool for supporting environmental management activities. For managers and executives, tying incentive pay to the attainment of environmental goals may help focus attention and invigorate efforts aimed at achieving them (Milliman & Clair, 1996). In the United States, companies such as Dupont have experimented with tying the salaries and bonuses for middle managers and senior officers to environmental stewardship practices and performance (May & Flannery, 1995). In Europe, companies such as Neste Oil link managers' bonuses to environmental performance goals and encourage line managers to allocate rewards to motivate the environmental behaviours of employees (Ramus, 2002).

The effectiveness of such executive pay practices is suggested by a longitudinal study of 469 US firms operating in high-polluting industries. The results revealed that firms with good environmental performance paid their CEOs more, and basing pay on long-term company results was associated with greater pollution prevention success (Berrone & Gomez-Mejia, 2009b). Nevertheless, developing effective monetary incentives can be challenging due to the difficulty of accurately and fairly evaluating environmental behaviours and performance (Fernandez, Junquera, & Ordiz, 2003). In addition, organizations must strive to find the right balance between the use of motivational "carrots" and "sticks." If punishment for low performance on environmental goals is viewed as too harsh, managers may withdraw from engagement in environmental management actions, and if rewards are too weak, they may fail to stimulate managers to take significant action.

The structure of an organization's base pay also can be used to reward employees who contribute to achieving environmental objectives, by including factors such as knowledge of environmental regulations and assessing responsibility for decisions with potential environmental consequences when conducting job evaluation studies. For example, salaries offered to recent graduates recruited at Shell UK, the oil company, take into account and reward knowledge and experience related to bio-fuels (Brockett, 2007, p. 9).

Recognition programs are another popular component of corporate environmental initiatives. For example, the 3P (Pollution Prevention Pays) program at 3M enables employees who propose a green project to earn recognition awards (e.g., trips and diplomas). Other non-monetary rewards that have been offered by some US firms to recognize employees who have contributed to meeting environmental goals include paid vacations, time off, preferred parking, and gift certificates (Govindarajulu & Daily, 2004). A survey conducted in the UK by CIPD/KPMG estimated that 8% of UK firms were rewarding green behaviours with various types of awards and/or financial incentives (Phillips, 2007, p. 9), and there is some evidence that such practices can be effective in motivating employees to generate eco-initiatives (Ramus, 2002).

Among the many HR practices available, incentives and rewards are often presumed to be the most powerful means for connecting organizational interests to employees' interests. Managers generally assume that incentives and rewards can direct employees' attention to the most important aspects of their work and motivate them

to exert maximal effort. Poorly designed pay practices can lead to employee behaviours that maximize the performance being measured, while being detrimental to the interests of the employer, customers and/or the broader society. Too often, incentives encourage executives to use accounting and other tricks to achieve short-term results and enrich themselves (Benz & Frey, 2007; Denis, Hanouna, & Sarin, 2006). Compensation schemes that link rewards to performance against environmental objectives will not be immune to such abuse. Also important is recognizing that poorly designed incentives may cause employees to avoid reporting environmental problems for fear of being punished (e.g., see Brio, Fernández, & Junquera, 2007). Therefore, research that identifies effective approaches to designing and implementing compensation practices to support the achievement of environmental goals would be especially useful.

Greening the organizational culture

Organizational culture is considered a key determinant and indicator of the success or failure of environmental management programs at companies (Brío, Fernández, & Junquera, 2007). An organization's culture embodies the main assumptions, values, symbols and activities within an organization that reflect what the employees and top management think about environmental sustainability issues (Harris & Crane, 2002). As research by Govindarajulu and Daily (2004) has shown, top management support is central to a green organizational culture. Besides lack of top management support, Harris and Crane (2002) identified other barriers that often prevent the greening of an organization's culture. However, much more research is needed to understand how HR professionals can mitigate these barriers and promote a green organizational culture.

One goal for HRM research is to develop a deeper understanding of how HRM practices contribute to the greening of organizational culture. Empirical studies linking HRM practices such as training and rewards to the establishment of a green organizational culture are necessary for an advance in this state of the art. Such research requires the development of valid measures of green organizational culture. Interesting insights may also emerge from multilevel studies that examine how national cultures influence the greening of organizational cultures. For global companies, the differences in country cultures may present special challenges as they strive to create a green organizational culture that is equally appropriate and effective around the world.

Research linking strategic HRM and environmental management

It seems likely that research reflecting a functional HRM perspective will flourish, for it is quite easy to examine how well established principles apply to this new focal topic. On the other hand, conceptual and empirical work at the intersection of strategic HRM and environmental sustainability may prove to be a more difficult challenge. Nevertheless, as Jackson and Seo (2010) have pointed out, past work in the areas of strategic HRM and environmental sustainability share some common elements that provide opportunities for integration of these two research streams. Among these are: acceptance of the economic imperatives that shape the behaviours of managers, shared conceptual frameworks for describing the strategies that businesses pursue to maximize their performance, an increasing recognition of the value of addressing the

concerns of multiple stakeholders, and a shift from focusing on domestic businesses to addressing issues faced by firms operating across national borders in an increasingly global economy.

Economic imperatives as drivers of management actions

For many scholars and practitioners, the term “strategic HRM” suggests that improving the financial performance of a company should be the primary rationale that drives decisions about how to manage human resources. Consistent with this perspective, numerous studies have presented evidence to show that the use of appropriate HRM systems yields financial returns (e.g., see Becker & Gerhart, 1996; Becker & Huselid, 1998). Likewise, a substantial body of research has sought to establish a relationship between environmental management practices and financial indicators of firm performance, and there is some evidence to suggest that firms can expect to see an increase in their market value when they announce that they are adopting environmental management systems such as ISO 14001 (e.g., see Jacobs, Singhal, & Subramania, 2010; González-Benito & González-Benito, 2008).

As the research streams on strategic HRM and environmental management have co-evolved, each has come to recognize that focusing on financial performance is too limiting; the complexities of organizations require new models and perspectives that take into account the many interdependencies among the various elements that comprise a larger system. The articles in this special issue are examples for the emergence of multi-disciplinary work. However, similar to the majority of publications in Green HRM so far, they are by authors that do not have a strong HRM background. In contrast, so far only very few HRM scholars work across boundaries and contribute to the Green HRM literature.

Business strategies for maximizing firm performance

Scholars in strategic HRM and environmental management also share the assumption that effective organizations strive to align their management practices with business-related contingencies and strategic objectives (e.g., see Miles & Snow, 1984; Schuler & Jackson, 1987; Ambec & Lanoie, 2008). For example, firms pursuing “prospector” versus “reactor” strategies may adopt different approaches for recruiting executive (Hambrick, 2003). As another example, firms pursuing a “differentiation” strategy may gain more value from investments in commitment-focused HRM practices, whereas firms pursuing a “low-cost” strategy may gain more value by adopting control-focused HRM practices (Arthur, 1994). Applying this logic to environmental management strategies, organizations pursuing a strategy of differentiation through environmentally-related innovation may find that it is useful to increase their uniqueness by hiring employees who are environmentally aware and also highly committed and motivated to improve the organization’s environmental sustainability. Attracting such environmentally aware talent might be facilitated by pro-active branding of the organization as a high-quality “green employer of choice”. Alternatively, organizations pursuing a cost-reduction environmental strategy may find that it is more effective to focus on how and in what ways HRM practices can be used to reduce production and labour costs, e.g., by providing training and incentives to encourage recycling and

waste management, supporting flexible schedules and telecommuting, and reducing long-distance business travel.

Achieving alignment between business strategies, HRM practices, and environmental management policies requires a sophisticated understanding of the alternative strategic paths that environmentally sustainable businesses can pursue. Different sets of HRM practices may be appropriate depending on whether the business strategy emphasizes, for example, improvements in efficiency, advances in technology, or developing new markets (e.g., see Hoffman, 2007; Shrivastava, 1995).

Addressing the concerns of multiple stakeholders

A salient feature of strategic HRM scholarship is its focus on establishing the economic value of appropriately designed HRM systems, thereby elevating the importance of investors as the stakeholders of primary concern. By focusing so much effort on demonstrating the economic value of HRM systems, strategic HRM scholarship (especially the American variety) has drawn substantial criticism from scholars (especially Europeans) who view organizations as interdependent with a larger set of stakeholders (e.g., Larsen & Mayrhofer, 2006).

Certainly, employees are among the significant stakeholders of any business, raising the question: How do managers' attitudes and behaviours influence the well-being of employees (see Pfeffer, 2010; Sanders & Frenkel, 2011)? Extending such concerns to the arena of Green HRM, we could ask: What are the consequences for employees of working in a company that does or does not engage in sophisticated environmental management? Do employees experience gains in their well-being where environmental management strategies and systems are in place, or suffer losses to their health and welfare where they are absent? The need for pro-active environmental management by HRM professionals is especially great in locations where employees are somewhat willingly to accept unsafe working conditions in exchange for any employment opportunity. For example, in the *Maquiladora* factories and plants along the US-Mexico border, lax environmental regulations and enforcement result in some workers as well as children in those communities being exposed to chemical vapours and irritating dust that foul the air, irritate the lungs, sting the eyes, and perhaps have undetected long-term health consequences (Butler & Teagarden, 1993). In China also, high-profile industrial accidents have polluted the environment and caused human suffering in the form of breathing disorders and lung disease (Fendby, 2004; Hockridge, 2009).

Besides protecting employees in current jobs, pro-active environmental management strategies offer the promise of new job creation. In regions currently suffering economic contraction, greater environmental awareness provides an opportunity to increase employment levels through the creation of new "green jobs." For example, the International Labour Organisation (ILO) (Torres, 2008) has raised the possibility of receiving a 'double-dividend' as a result of investments in environmentally friendly business. Progress toward both environmental and social goals can be realized by shifting to greater reliance on new sources of energy because such a change would create both new business opportunities and new employment opportunities.

Consistent with such arguments, we believe that scholarship at the intersection of strategic HRM and environmental sustainability presents new opportunities to find

win-win management approaches that yield benefits to shareholders, employees, customers and communities, as well as other organizational stakeholders. On the one hand, efforts to establish a link between environmental management practices and positive financial outcomes have been somewhat fruitful (e.g., Ambec & Lanoie, 2008; Sharfman & Fernando, 2008). On the other hand, many sustainability scholars view environmental management activities as just one among several concerns to be addressed by organizations concerned with the broader issue of sustainability (Ehnert, 2009; Pfeffer, 2010). For example, the so-called Triple Bottom Line approach assumes that concerns about profits, people and the planet are inextricably intertwined. Working together, strategic HRM and sustainability scholars may now be able to establish that positive financial outcomes are more likely to be experienced in firms that effectively align their HRM systems to support their environmental initiatives.

But will the HRM community of scholars and practitioners step up and take on this challenge? Will HR managers who want “a seat at the table” so they can play a more strategic role in organizations be willing to promote HRM practices to support environmental sustainability, or will they view such activities as politically risky given their desire to be represented at the board-level? Certainly, not all HR professionals agree that the future belongs to Green HRM. According to a survey conducted by the UK’s Chartered Institute of Personnel and Development (CIPD), many HR managers criticize Green HRM as ‘wishy-washy’, ‘not proved’, and a form of ‘extremism’. Some consider environmental concerns as ‘a lot of hype’ and believe that HR managers should avoid ‘jumping on political bandwagons [such as environmental management] that do not support the profitability of our organisations’ at a time when the field of HRM is ‘striving to be taken seriously by business’ (CIPD, 2007, p. 3-4).

Perhaps HRM practitioners are reluctant, but willing for others to lead the way forward. Are HRM scholars ready to take on that role? The integration of strategic HRM and environmental sustainability scholarship offers an opportunity to break away from the narrow economic interpretation of what “strategic HRM” means. Rather than assuming that “strategic” equates to showing the financial consequences of HRM policies and practices, the triple bottom line (i.e., multiple-stakeholders) perspective recognizes the legitimate concerns of constituents other than investors (e.g., McWilliams et al., 2006) and reflects a shift in the world views of some managers and many scholars (Colbert & Kurucz, 2007; Mirchandani & Ikerd, 2008; Savitz & Weber, 2006).

Alliance partners are another constituency affected by both environmental management activities and an organization’s HRM practices. Achieving environmental goals often requires cooperative alliances among firms along the supply chain. In collaboration with alliance partners, firms can influence government actions, address shared research and development needs, expand access to new markets, and more. For example, Wal Mart’s “Sustainability 360” initiative encourages employees, suppliers, communities and customers to prioritize sustainability (Stringer, 2009). Mergers, acquisitions, and joint ventures are another type of alliance that create challenges for environmental management. Some of the challenges encountered in cooperative alliances also create opportunities for HR professionals to promote a strategic approach to HRM. For example, alignment (congruence) of HRM systems across alliance part-

ners can be useful for stimulating and reinforcing a consistent set of environmentally-friendly employee behaviours, as well as creating a consistent set of metrics for evaluating such behaviours. Yet, managers seldom evaluate the HRM systems of potential alliance partners to assess how well they support environmental management activities. Thus, scholarship that helps inform managers about how to evaluate HRM systems for their ability to support environmental objectives could be especially useful.

Venturing into the environmental management arena may sensitize strategic HRM scholars and practitioners to the symbolic importance of HRM systems, also. Currently, the strategic HRM literature presumes that HRM systems produce value primarily through their influence on the creation, production, and delivery of goods and services. The symbolic role of HRM practices has seldom been examined. Yet, some HRM practices may be adopted as a means of signalling to a variety of external stakeholders that the firm recognizes environmental performance as a legitimate indicator of effectiveness (Berrone & Gomez-Mejia, 2009a). As multiple stakeholders put increasing pressure on organizations to become more environmentally friendly, scrutiny of HRM systems may become more common. Thus, improving our understanding of how external stakeholders perceive and evaluate HRM systems vis-à-vis their expectations for environmental sustainability is a worthy research objective.

Managing across national borders

As economic globalization hurtled forward, international HRM emerged as a robust area of scholarship and practice. Multinational corporations (MNCs) strive to develop HRM systems that fit the contours of a complex, multifaceted, and shifting international landscape. Managing inter-unit linkages and internal operations in concert with the laws, culture, politics, economy, and general environment of particular locations presents significant HRM challenges (Almond et al., 2005; Schuler, Budhwar, & Florkowski, 2002; Pinsky, Kuss, & Hoffmann, 2010; Tarique & Schuler, 2010). As world attention is increasingly drawn to environmental concerns, regulatory, political, and social pressures are likely to intensify. At the same time, these pressures may move toward greater consistency.

Studies indicate that HRM systems around the world are already becoming more similar—that is, they are converging (Brewster, Mayrhofer, & Morley, 2004); but the process through which convergence occurs and the consequences of such convergence is poorly understood (Muller-Camen et al., 2011). Research that examines how the HRM systems of MNCs evolve in response to converging institutional pressures for effective environmental management could provide new insights into the conditions that promote and impede a firm's adoption of a single global HRM system (versus reliance on multiple HRM systems that reflect specific locales). Studies of evolutionary processes within MNCs could build on prior research of domestic firms. For example, based on data from 94 Brazilian firms with ISO 14001 certification, Jabbour, Santos, and Nagano (2010) observed that firms varied greatly in the degree to which HRM activities were aligned with environmental management, even in firms that had publicly declared their commitment to environmental sustainability. In some firms, HRM practices such as job analysis, selection, performance evaluation, training, and compensation appeared to be unaffected by environmental management efforts. In

other firms, the influence of environmental imperatives could be seen across all aspects of the HRM system. Furthermore, based on qualitative data from four firms, Jabbour et al. (2010) concluded that some elements of the HRM system (specifically, performance evaluation, rewards and recognition) were perceived as particularly relevant for achieving environmental sustainability.

Among the questions to be addressed by future research on the evolution of HRM systems to support environmental initiatives in MNCs are these: What explains the degree of alignment observed among the various organizational systems that are implicated in environmental management? Are some evolutionary paths to alignment more effective than others? And, how can firms assess the extent to which alignment exists? What are some of the early warning signs that indicate the HRM system is not well aligned?

Conclusion

Gradually, leading firms around the world are beginning to shift from reliance on processes that exploit the environment toward those that are environmentally sustainable (Schot & Fischer, 1993; Winn, 1995). Changes in corporate perspectives vis-à-vis the environment are evident in written policy statements, “environmental” job titles, attention devoted to managing relations with environmental groups, marketing strategies, decisions about capital investments, auditing practices, new product design and development, and production processes (e.g., see Ambec & Lanoie, 2008, forthcoming; Hoffman, 1997; Molina-Azorín et al, 2009; Sharfman & Fernando, 2008). Going forward, we anticipate seeing more research like the studies in this special issue, which seek to illuminate the role of HRM activities in supporting and perhaps even driving environmental management initiatives. Such research promises to help organizations reduce environmental degradation and reap the benefits of environmental protection and renewal, further contributing to the benefit of all organizational stakeholders in the future.

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